Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 –16 (cancelled)

Claim 17 (new) An electrostatic fluid accelerator comprising:

a first array of corona discharge electrodes disposed in a first plane;

a second array of corona discharge electrodes disposed in a second plane, said second plane being parallel to and spaced apart from said first plane; and

a third array of accelerating electrodes disposed in a third plane, said third plane being parallel to said first and second planes and disposed therebetween, wherein each accelerating electrode of said third array is disposed in a staggered configuration with respect to said corona discharge electrodes of said first array.

Claim 18 (new) The electrostatic fluid accelerator of claim 17, wherein each accelerating electrode of said third array is disposed in a staggered configuration with respect to said corona discharge electrodes of said second array.

Claim 19 (new) The electrostatic fluid accelerator of claim 18, wherein said corona discharge electrodes of said first array are disposed in an aligned orientation with respect to said corona discharge electrodes of said second array.

Claim 20 (new) The electrostatic fluid accelerator of claim 17, wherein a spacing between each corona discharge electrode of said second array and a nearest accelerator electrode of said third array is within the range of 1.2 to 2 times a spacing between each corona discharge electrode of said first array and a nearest accelerator electrode of said third array.

Claim 21 (new) The electrostatic fluid accelerator of claim 20, wherein said spacing between each corona discharge electrode of said second array and a nearest accelerator electrode of said third array is within the range of 1.2 to 1.65 times said spacing between each corona discharge electrode of said first array and a nearest accelerator electrode of said third array.

Claim 22 (new) The electrostatic fluid accelerator of claim 20, wherein said spacing between each corona discharge electrode of said second array and a nearest accelerator electrode of said third array is approximately 1.4 times said spacing between each corona discharge electrode of said first array and a nearest accelerator electrode of said third array.

Claim 23 (new) The electrostatic fluid accelerator of claim 17, further comprising:

a forth array of accelerating electrodes disposed longitudinally in a forth plane, said forth plane being parallel to said first, second, and third planes and disposed on an opposite side of said second array than is said third plane, wherein each accelerating electrode of said forth array is disposed in a staggered orientation with respect to said corona discharge electrodes of said second array.

Claim 24 (new) The electrostatic fluid accelerator of claim 17, further comprising:

a high voltage power supply circuit coupled to said first and third arrays, wherein a high voltage waveform provided to corona discharge electrodes of said first array is synchronized with a high voltage waveform provided to corona discharge electrodes of said second array.

Claim 25 (new) The electrostatic fluid accelerator of claim 24, wherein said high voltage waveform provided to said first array is syn-phased with said high voltage waveform provided to said second array.

Claim 26 (new) The electrostatic fluid accelerator of claim 24, wherein said high voltage power supply circuit comprises:

a first high voltage power supply coupled to said first array;

a second high voltage power supply coupled to said second array; and

control circuitry coupled to said first and second high voltage power supplies and operable to control each said high voltage power supply to generate synchronized and syn-phased high voltage waveforms.

Claim 27 (new) An electrostatic fluid accelerator system having a plurality of closely spaced electrostatic accelerator stages, said system comprising:

a first electrostatic accelerator stage having a first array of corona discharge electrodes disposed in a first plane and a first array of accelerating electrodes disposed in a second plane; and

a second electrostatic accelerator stage having a second array of corona discharge electrodes disposed in a third plane and a second array of accelerating electrodes disposed in a forth plane, wherein each corona discharge electrode of said second array of corona discharge electrodes is disposed offset from each accelerating electrode of said first array of accelerating electrodes.

Claim 28 (new) The system of claim 27, wherein each of said first, second, third, and forth planes are parallel.

Claim 29 (new) The system of claim 27, further comprising:

a high voltage power supply circuit coupled to said first and second arrays of corona discharge electrodes, wherein a high voltage waveform provided to said first array of corona discharge electrodes is synchronized with a high voltage waveform provided to said second array of corona discharge electrodes.

Claim 30 (new) The system of claim 29, wherein said high voltage waveform provided to said first array of corona discharge electrodes is syn-phased with said high voltage waveform provided to said second array of corona discharge electrodes.

Claim 31 (new) The system of claim 29, wherein said high voltage power supply circuit comprises:

a first high voltage power supply coupled to said first array of corona discharge electrodes;

a second high voltage power supply coupled to said second array of corona discharge electrodes; and

control circuitry coupled to said first and second high voltage power supplies and operable to control each said high voltage power supply to generate synchronized high voltage waveforms.

Claim 32 (new) The system of claim 27, wherein each accelerating electrode of said first array of accelerating electrodes is disposed offset from each corona discharge electrode of said first array of corona discharge electrodes.

Claim 33 (new) The system of claim 32, wherein each accelerating electrode of said second array of accelerating electrodes is disposed offset from each corona discharge electrode of said second array of corona discharge electrodes.

Claim 34 (new) The system of claim 32, wherein corona discharge electrodes of said first array of corona discharge electrodes are disposed in alignment with corona discharge electrodes of said second array of corona discharge electrodes.

Claim 35 (new) The system of claim 32, wherein a spacing between said corona discharge electrode of said first array of corona discharge electrodes and said accelerating electrodes of said first array of accelerating electrodes is a first distance, said first distance being greater than an intra-stage electrode spacing as measured along a line normal to each first and second planes.

Claim 36 (new) The system of claim 35, wherein a spacing between each corona discharge electrode of said second array of corona discharge electrodes and said accelerating electrodes of said first array of accelerating electrodes is a second distance, said second distance being greater than an inter-stage electrode spacing as measured along a line normal to each said second and third planes, said second distance being greater than said first distance.

Claim 37 (new) The system of claim 36, wherein said second distance is in the range of 1.2 to 2 times said first distance.

Claim 38 (new) The system of claim 36, wherein said first distance is selected as a function of a corona onset voltage between said corona discharge electrodes of said first array of corona discharge electrodes and said accelerating electrodes of said first array of accelerating electrodes.

Claim 39 (new) The system of claim 36, wherein said second distance is selected to prevent a back corona between said second electrostatic accelerator stage and said first electrostatic accelerator stage.

Claim 40 (new) A method for providing an electrostatic fluid accelerator, said method comprising:

determining an intra-stage spacing to facilitate a corona onset voltage between corona discharge electrodes and accelerating electrodes of an electrostatic fluid accelerator while minimizing sparking between said corona discharge electrodes and said accelerating electrodes;

determining an inter-stage spacing to prevent a back corona forming between accelerating electrodes of a first electrostatic accelerator stage and corona discharge electrodes of a second electrostatic accelerator stage, said inter-stage spacing being within the range of 1.2 to 2.0 times said intra-stage spacing;

disposing said accelerating electrodes of said first electrostatic accelerator stage in a first plane; and

disposing said corona discharge electrodes of said second electrostatic accelerator stage in a second plane, wherein said first and second planes are parallel, and wherein a spacing between said first and second planes is less than said inter-stage spacing.

Claim 41 (new) The method of claim 40, wherein said disposing said corona discharge electrodes of said second electrostatic accelerator stage in said second plane comprises:

disposing said corona discharge electrodes parallel to and in an offset configuration with said accelerating electrodes.

Claim 42 (new) The method of claim 40, further comprising:

disposing corona discharge electrodes of said first electrostatic accelerator stage is a third plane, wherein said first, second, and third planes are parallel, and wherein a spacing between said first and third planes is less than said intra-stage spacing.

Claim 43 (new) The method of claim 42, wherein said disposing said corona discharge electrodes of said first electrostatic accelerator stage in said third plane comprises:

disposing said corona discharge electrodes of said first electrostatic accelerator stage parallel to and in-line with said corona discharge electrodes of said second electrostatic accelerator stage and parallel to and in an offset configuration with said accelerating electrodes of said first electrostatic accelerator stage.

Claim 44 (new) The method of claim 40, further comprising:

providing said first electrostatic accelerator stage having a first array of corona discharge electrodes and a first array of accelerating electrodes comprising said accelerating electrodes of said first electrostatic accelerator stage, wherein said providing said first electrostatic accelerator stage includes spacing each corona discharge electrode of said first array of corona discharge electrodes apart from said accelerating electrodes of said first array of accelerating electrodes said intra-stage spacing;

providing a second electrostatic accelerator stage having a second array of accelerating electrodes and a second array of corona discharge electrodes comprising said corona discharge electrodes of said second electrostatic accelerator stage, wherein said providing said second electrostatic accelerator stage includes spacing each corona discharge electrode of said second array of corona discharge electrodes apart from said accelerating electrodes of said second array of accelerating electrodes said intra-stage spacing.

Claim 45 (new) The method of claim 44, further comprising:

exciting said first electrostatic accelerator stage and said second electrostatic accelerator stage with a synchronized high voltage waveform.

Claim 46 (new) The method of claim 45, further comprising:

syn-phasing said high voltage waveform such that a potential difference between said first array of corona discharge electrodes and said second array of corona discharge electrodes is maintained substantially constant.